(Revised December 19, 1925)

RADIO PUBLICATIONS OF THE BUREAU OF STANDARDS.

The publications listed are not in general obtainable from the Bureau of Standards. Those which do not have the symbol obefore them (except Letter Circulars listed at end) were printed by the Government Printing Office, and can be secured by purchase from the Superintendent of Documents, Government Printing Office, Washington, D.C., at the prices stated. Those titles having the symbol obefore them are references to articles emanating from this Bureau which have been published in outside periodicals. The Bureau can not supply copies of the articles published in outside periodicals; inquiries for copies of such papers should be addressed directly to the publisher of the periodical concerned. Files of the periodicals and of the Bureau's publications are maintained at large public libraries.

The following abbreviations are used to indicate the several classes of Bureau of Standards publications obtainable from the Government Printing Office:

S = Scitatific Paper

T = Technologic Paper

C = Circular

M = Miscellaneous Publication

For example, S189 means Scientific Paper No.189. The letter and number should both be given in ordering a publication. It is not necessary to give the name of the article nor to use the full expression, Scientific Paper, Technologic Paper, etc.

A complete list of the Bureau's publications on all subjects, with a brief abstract of each and complete general information about the Bureau publications, is given in Circular No.24, "Publications of the Bureau of Standards," which is obtainable on request from the Bureau.

Current publications of the Bureau on all subjects are announced in a series of card announcements. The Bureau will, upon request, place any name on its mailing list to receive these announcements.

The Eureau does not maintain a mailing list for distribution of its radio publications as issued. Persons who wish to keep in touch with the radio publications of the Eureau as they are issued should subscribe to the "Radio Service Bulletin," a monthly publication of the Department of Commerce. Subscriptions should be sent to the Superintendent of Documents, Government Printing Office; the price is 25 cents per year for subscribers in the United States and its possessions, and Canada, Cuba, and Mexico. To other countries the subscription price is 40 cents per year.

Besides notices regarding new Government radio publications, the "Radio Service Bulletin" contains brief news items concerning Government radio work, additions and changes to the lists of radio calls and radio regulations, and other useful information. The Radio Service Bulletin also publishes each menth a list of references to the more important radio articles appearing in the technical radio periodicals. These references are classified in accordance with the same scheme as that used herein.

The numbers preceding the names of publications below are classification numbers according to a decimal classification system, and are <u>not</u> the numbers by which the publications are known or ordered. The general subjects corresponding to the various classification numbers, and a complete description of the classification system, are given in Circular No.138, "A Decimal Classification of Radio Subjects -- An Extension of the Pewey System," price 10 cents.

ROOO. Radio Communication (General)

- oRCO7.9 The work of the International Union of Scientific Radio Telegraphy. J.H.Dellinger, Proceedings of the Institute of Radio Engineers, 11, pp.75-83; April, 1923.
- °RO10 The radio research field (Abstract). J.H.Dellinger. and L.E. Whittemore. Physical Review, <u>18</u>, pp.152-153; August, 1921.
- ORO10 Bureau of Standards Radio Work. J.H.Dellinger. The Federal Employee, 4, p.531, September; p.590, Oct., 1919. Reprinted in Radio Amateur Hews, 1, p.400-402, Feb., 1920, as "The Radio Compass."
- ORO10 The radio work of the Department of Commorce. J.H. Dellinger. QST, 4, pp.18-21; June, 1921.
- ORO10 The Bureau of Standards londs a hand. J.H.Dollinger. Radio Broadcast, 1, pp.40-48; Nov., 1922.
- ORO10 Recent developments in radio in the United States.

 J.H.Dellinger. Beletim de la Uniao Pan-Americana,

 (Portugese), <u>25</u>, pp.31-37; July, 1923. Beletin de la

 Union Panamericana (Spanish), <u>57</u>, pp.117-133; Aug., 1923.
- ORO10 Radiant future for radio for cast. J.H.Dellinger.
 Manufacturer's News, 25, pp.5-6; April 12, 1924.
- ORO10 Survey of current progress in radio engineering.
 J.H.Dellinger. Journal Western Society of Engineers,
 30, p.39; Feb., 1925.



- PRO10 Solving the mysteries of radio. J.H.Dellinger and C.B.Jolliffe. The Federal Employee, 10, p.12 of September, 1925.
- RO30 Electric wire and cable terminology. C37. 13 pages. 2d edition. 1915. 5ϕ
- Notation for electron tube circuits. J.H.Dellinger. Radio Review 2, pp.454-459; December, 1921.
- RO55 Sources of Elementary Radio Information. C122. 16 pages. 1923. (Second edition). 5 \(\xi\). (Information regarding radio publications, including those of the Government, and radio periodicals, radio laws, and call letters. Answers various questions of the beginner.)
- RO55 A decimal classification of radio subjects-- An extension of the Dewey system. Cl38. 33 pages. 1923. $10\, \phi$.
- RO81 Kilocycle-meter conversion table. M67. 1 page. 1925. 5ϕ .

R 100. Radio Principles.

- R100 The Principles Underlying Radio Communication. Signal Corps Radio Communication Pamphlet No.40. Second edition, issued March 23, 1922. Textbook of 619 pages, with 300 illustrations, covering radio principles and practice. Price \$1.00. Foreign postage 15 cents extra. (See note above regarding foreign postage.)
- oR100 Radio Communication: Elementary explanation of the principles of radio telegraphy and telephony. J.H. Dellinger. Scientific American Monthly, 124, pp.157-162; Feb., 1921.
- R113

 A statistical study of conditions affecting the distance range of radio telephone broadcasting stations. C.H.

 Jansky, Jr. T297. (B.S.Tech.Papers, 19, pp.641-650)

 1925. 5¢
- OR113 Application of radio transmission phenomena to the problems of atmospheric electricity. (Abstract).

 J.H.Dellinger. Bulletin National Research Council, 10, part 3, No.53, p.61; July, 1935.

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- R113.1

 A study of radio signal fading. J.H.Dellinger, L.M. Whittenore, and S.Kruse. S476 (B.S.Scientific Papers 19, pp.193-230). 1923. 10¢. Preliminary publication in QST, 4, pp.11-14 of Sept., pp.5-13 of Nov., pp.13-15 of December, 1920; 7, pp.23-34 of Aug., pp.23-26 of Sept., 1923.
- OR113.1 Radio signal fading phenomena. J H.Dellinger and L.E. Whittemore. Jnl.Wash.Academy of Sciences, 2, pp.243-259; June 4, 1921. Copied in Jahrb. d. Drahtlosen Tel. & Tel., 24, (No.3), p.66; 1924.
- Oncorning the nature of fading. J.H.Dellinger. Radio News, 7, p.270; September, 1925.
- R113.3 Variations in direction of propagation of long electromagnetic waves. A.H.Taylor. S353. (B.S.Scientific Papers 15, pp.419-433.) 1919. 5 ¢.
- Objects that distort radio waves. L.E. Thittemore. Radio Broadcast, 1, pp.101-106; June, 1922.
- R116 Theory of determination of ultra-radio frequencies by standing waves on wires. A. Hund S491. (B.S. Scientific Papers 19, pp.487-540). 1934. 15\$\sigma\$.
- Orrection factor for the parallel wire system used in absolute radio-frequency standardization. A. Hund. Proceedings Institute of Radio Engineers, 13, pp.817-331; December, 1924.
- R120 Effect of imperfect diplectries in the field of a rediotolographic antenna. J.L. iller. S239. (B.S. Scientific Papers 13, No.1, pp.129-136) 1916. 5¢.
- R120 Electrical oscillations in antennas and inductance coils. J.M.Miller. 8336. (B.S.Scientific Papers 14, No.4, pp.677-696) 1913. $5 \not e$.
- R120 Principles of radio transmission and recaption with antenna and coil aerials. J.H.Dellinger. S354. (B.S. Scientific Papers, <u>15</u>, pp.435-495) 1919. 10 \$
- OR120 Electric wave transmission formulas for antenna and soil acrials (brief note). J.H.Dellinger. Physical Adview, 14, p.180; August, 1919.
- OR132 Experiments with the two-plate cond near entenna. J.C. Warner. Radio News, 4, pp.1618-1630; darch, 1923.
- R124 The field radiated from two horizontal poils. G.Breit. S431. (B.S.Scientific Papers 17, pp.589-606). 1922. 5¢.

- OR124 Development of loop aerial for submarine radio communication, (brief note). J.A. Willoughby and P.D. Lowell. Physical Review, 14, p.193; Aug., 1919.
- R125.1 The radio direction finder and its application to navigation. F.A.Kolster and F.V.Dunmore. S438.
 (B.S.Scientific Papers 17, pp.539-566). 1922. 15 \$\nlime\$.
- oR125.1 A simple type of radio direction finder for use on shipboard. F.W.Dunmore. Radio Service Bulletin, No.54, pp.10-12; Oct.1, 1921. Reprinted in Radio News, 3, pp.588 and 632, Jan., 1922, as "The radio direction finder: its application, construction and operation."
- R125.6 Directive radio transmission on a wave length of 10 meters. F.W.Dunmore and F.H.Engel. S463. (B.S.Sei-entific Papers 19, pp.1-16). 1923. 10 \(\xi\). Reprinted in Radio News, \(\bar{5}\), pp.128-130; Aug., 1823, as "Short wave directive radio transmission."
- R127 Note on resistance of radio telegraphic antennas. L.W. Austin. S257. (B.S.Scientific Papers 12, No.3, p.465). 1915. 5¢.
- R127 Airolane antenna constants. J.M.Cork. S341. (B.S. Scientific Papers, 15, pp.199-213). 1919. 5¢.
- OR131 A dynamic method of determining the characteristics of three-electrode vacuum tubes. J.M.Willer. Proceedings of the Institute of Radio Engineers, 6, pp.141-148; June, 1918.
- oR131 The dependence of the emplification constant and internal plate circuit resistance of a three-electrode vacuum tube upon the structural dimensions. J.M.Miller. Proceedings of the Institute of Radio Engineers, 8, pp.64-74; Feb., 1920.
- R133 Determination of the output characteristics of electron tube generators. L.M.Hull. S355 (B.S.Scientific Papers, 15, pp.497-517). 1919. 5¢.
- Operation of an electron tube as an amplifying roctifier. (Brief note.) L.M.Hull. Physical Review, <u>15</u>, p.557; June, 1920.
- R134.4 Dependence of the input impedance of a three-electrode vacuum tube upon the load in the plate circuit. J.M. Miller. S351. (B.S.Sci intific Papers 15, pp.367-385.) 1919. 5¢
- R134.4 A quantitative study of regeneration by inductive feedback. C.B.Jolliffe and J.A.Rodman. S437. (B.S. Sci. Papers 19, pp.419-423). 1934. 10 \$\frac{1}{2}\$.



- R135 Operation of the modulator tube in radio yelephone sets. E.S.Purington. S423. (B.S.Sci. Papers 17, pp.377-406). 1921. 10 \$\nabla\$.
- OR136 Input resistance of thermionic valve. J.M.Miller.
 Journal American Institute of Electrical Engineers, 40,
 p.200; March, 1921.
- Capacitive coupling in radio circuits. (Brief note).
 L.E. Whittemore. Physical Review, 15, p.559; June, 1920.
- R144 The high-frequency resistance of inductance coils. G.Breit. S430. (B.S.Sci. Papers, <u>17</u>, pp.569-587). 1922. 5¢.
- R145.3 Formulas and tables for the calculation of mutual and self-inductance. Rosa and Grover. S169. (B.S.Sci.Papers 8, No.1, pp.1-237). 1911. 20¢.
- R145.3 Additions to the formulas for the calculation of mutual and self inductance, (Supplementing S169). F.W.Grover. S320. (B.S.Sci.Papers 14, No.4, pp.537-570). 1918. 10¢
- R145.3 Tables for the calculation of the inductance of circular coils of rectangular cross section. F.W.Grover. S455. (B.S.Sci.Papers 18, pp.451-487). 1922. 10 ¢.
- R145.3 Formulas and tables for the calculation of the inductance of coils of polygonal form. F.W.Grover. S468. (B.S.Sci. Papers 18, pp.737-762). 1923. 10 ¢.
- °R145.3 The industance of coils wound on polygonal frames. (Brief note). F.W.Grover. Physical Review, <u>16</u>, p.532; June, 1920.
- °R145.3 The effective capacity of multilayer coils with square and circular section. G.Breit. Philosophical Magazine, 43, pp.963-992; May, 1922.
- °R145.3 The effective capacity of pancake coils. G.Breit. Philosophical Magazine, 44, pp.729-740; Oct., 1922.
- OR145.3 Formulas and tables for the calculation and design of single-layer coils. F.W.Grover. Proceedings Institute of Radio Engineers, 12, pp.193-208; April, 1924.
- OR147 When broadcast stations interfere. C.B.Jolliffe. Radio Broadcast, 7, pp.586-590; Sept., 1925.

R 200. Radio Measurements and Standardization.

- R200 Radio instruments and measurements. C74. (2nd edition). 345 pages. 1934. 60 ¢.
- Reducing the guesswork in tuning. J.H.Dellinger. Radio Broadcast, 3, pp.241-245; July, 1923.

- Improvements in precision measurements at radio frequencies. (Brief note). J.H.Dellinger. Phys.Rev., 14, p.181; Aug., 1919.
 - OR201.6 Measurements at radio frequency. A.Hund. Electrical Vorld, 84, pp.998-1000; Nov. 8, 1924.
 - OR210 A method of measuring very short radio wave lengths and their use in frequency standardization. F.W. Dunmore and F.H.Engel. Proceedings Institute of Radio Engineers, 11, pp.467-478; October, 1923.
 - OR213 A method of measuring radio frequency by means of a harmonic generator. A. Hund. Proceedings Institute of Radio Engineers, 13, pp.207-213; April. 1925.
- R220 The simultaneous measurement of the capacity and power factor of condensers. F.™.Grover. S64. (B.S.Sci. Papers 3, No.3, pp.371-431). 1907. 15 \$\delta\$.
- R220 Mica condensers as standards of capacity. H.L.Curtis. S137. (B.S.Sci. Papers 6, No.4, pp.431-488). 1910. 10 c.
- R220 The testing and properties of electric condensers. C36. 26 pages. 1912. 5 \(\xi \).
- R225 Some effects of the distributed capacity between inductance chils and the ground. G.Breit. S427. (B.S.Sci. Papers 17, pp.521-527). 1921. $5 \not e$.
- OR225 The effects of distributed capacity of coils used in radio telegraphic circuits. F.A.Kolster. Proceedings Institute of Radio Engineers, 1, pp.19-34; April, 1913.
- OR225 The distributed capacity of inductance coils. G.Breit. Physical Review, <u>17</u>, pp.649-677; June, 1921.
- R230 Measurement of inductance by Anderson's method, using alternating currents and a vibration galvanometer.

 Rosa and Grover. Sl4. (B.S.Sci.Papers 1, No.3, p.291-348). 1905. 15 ¢.
- R240 The influence of frequency on the resistance and inductance of solenoidal coils. L.Cohen. S76. (B.S.Sci. Papers 4, No.1, pp.161-178). 1907. 10 ¢.
- OR240 The measurement of radio-frequency resistance, phase difference and decrement. J.H.Dellinger. Proceedings Institute of Radio Engineers, vol.7, pp.27-59; Feb.,1919.
- R251 High-frequency ammeters. J.H.Dellinger. S206. (B.S. Sci.Papers 10, No.1, p.91-159). 1913. 10 ¢.



- *R261 The use of the electron tube meak voltmeter for the measurement of modulation. G.B.Jolliffe. Journal Optical Society of America and Review of Scientific Instruments, 9, pp.701-704; Dec., 1921.
- R281 Insulating properties of solid diploctries. H.L. Ourtis. S234. (B.S. Sei. Papers, 11, No.3, pp. 359-431). 1314.
- Proportios of electrical insulating materials of the laminated phonol-mathylene type. J.H.Pellinger and J.L.Preston. T216. (B.S.Tech.Papers, <u>16</u>, pp.501-627). 1322. 30 \$\delta\$.
- R281 Methods of measurement of properties of electrical insulating materials. J.H.Dellinger and J.L.Preston. 8471 (B.S.Sei.Papers 19, pp.39-72). 1983. 15 4.
- Radio-frequency properties of insulating materials.
 J.L.Preston and E.L.Hall. QST, 9, pp.25-28; Feb., 1925.
- R281.1 A study of the seasonal variation of radio-frequency phase difference of laminated phenolic insulating materials. J.L.Preston and E.L.Hall. T284. (B.S.Tech. Papers 19 pp. 225-234). 1925. 56.
- R284.ll Copper wire tables. C31. 78 pages. 3d edition. 1914. 20 \$\nu_c\$.

R 300. Radio Apparatus and Equipment.

- OR342 An electron tube amplifier for amplifying direct current. H.A.Snow. Journal Optical Society of America and Review of Scientific Instruments, 6, pp.136-182; March, 1932.
- R342.6 Radio-frequency amplifiers. P.D.Lowell. S449. (B.S.Sci.Papers 18, pp.335-313). 1922. 5\$.
- R342.7 Description and operation of an audio-fraquency amplifier unit for simple radio receiving outfits. C141.
 18 pages. 1933. 10 \(\delta \).
- OR342.7 Measurements on audio-frequency amplifiers. L.M.Hull. Vireless Age, 8, pp.12-16; June, 1921.
- R343 Description and operation of an electron tube detector unit for simple radio receiving outfits. C133. 21 pages. 1922. 10 \(\ell \).
- R343.7 An electron tube amplifier using 60-cycle alternating current to supply power for the filaments and plates. P.I.Lowell. \$450. (B.S.Sci. Papers 18, pp.345-352). 1922. 5 4.



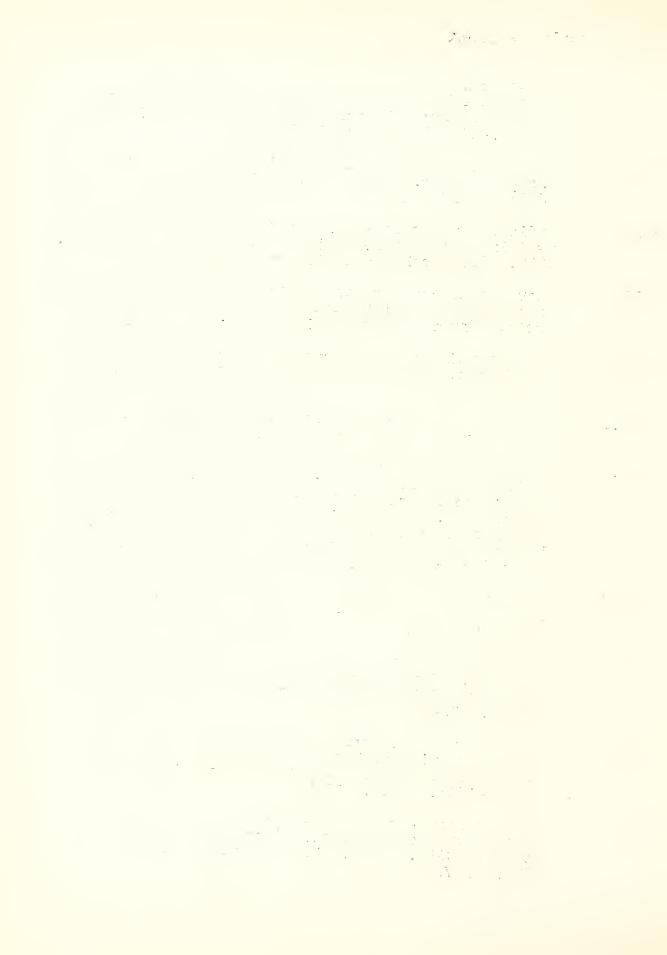
- R344 A method for testing and rating electron tube generators. L.M.Hull. Proceedings Institute Radio Engineers, 10, pp.373-392; Oct., 1922.
- R344.3 An electron tube transmitter of completely modulated waves. L.M.Hull. S381. (B.S.Sci.Papers 16, pp.259-271). 1920. 5 ¢.
- °R351 A 100 to 3000-meter oscillator. H.J. Walls. QST, 6, p.48 of May, 1923.
- R360 Some methods of testing radio receiving sets. J.L. Preston and L.C.F.Horle. T256. (B.S.Tech.Papers 18, pp.203-228). 1924. 10¢
- R370 Auxiliary condensers and loading coil used with simple homemade radio receiving outfits. Cl37. 19 pages. 1923. 10 ¢.
- R374 The construction and operation of a simple homemade radio receiving outfit. Circular 120. 16 pages. 1922. $5 \, \phi$.
- R374 Construction and operation of a two-circuit radio receiving equipment with crystal detector. Circular 121. 14 pages. 1922. 5¢.
- °R374 Permanent-contact crystal detectors. (Brief note). L.S.McDowell. Physical Review, <u>13</u>, p.288; April, 1919.
- °R376 The high-frequency impedance of radio telephone receivers. (Brief note). C.T.Zahn. Physical Review, 18, p.150; August, 1921.
- °R376 Some measurements of telephone sensitivity. H.H.Smith. Wireless Age, 9, pp.65-66; Aug., 1922.
- oR376 Note on telophone receiver impedance. E.Z.Stowell. Proceedings Institute of Radio Engineers, 13, pp.245-249; April, 1925.
- oR377 Radio telegraphy: A chronographic recorder of radio time signals. E.A. Eckhardt and J.C. Karcher. Journal Washington Academy of Sciences, 11, pp.303-310; July 19, 1922.
- OR377

 A relay recorder for remote control by radio. F.W.

 Dunmore. Journal of American Institute of Electrical
 Engineers, 41, pp.310-313; April, 1922. Reprinted
 in Wireless World and Radio Review, 10, pp.586-590;
 August 5, 1922.

- oR377

 A device for recording electric contact using an electron tube generator and a radio-frequency spark. C.T.Zahn. Journal Washington Academy of Sciences, 12, pp.412-416; Nov. 4, 1923.
- R382 A variable self and mutual inductor. H.B.Brooks and F.C.Weaver. S290. (B.S.Sci.Papers 13, pp.569-580). 1916. 10 \$\frac{1}{2}\$.
- Radio-frequency resistance and inductance of coils used in broadcast reception. A.Hund and H.B.DeGroot. T298. (B.S.Tech.Papers 19, pp.651-668). 1925. 10 c.
- oR382 Inductance, capacity and resistance of coils at radio frequencies. (Brief note). L.E. Whittomore and G. Breit. Physical Review, 14, p.170; August, 1919.
- R384.1 An improved type of wavemeter resonance indicator. M.S.Strock. S502. (B.S.Sci.Papers $\underline{20}$, pp.111-118). 1925. 5ϕ .
- °R384.1 Portable wavemeters for short-wave radio. R.T.Cox and S.Kruse. QST, <u>5</u>, pp.14-19; Sept., 1931.
- OR384.1 Standard radio wavemeter Bureau of Standards Type R-70B. R.T.Cox. Journal Optical Society of America and Review of Scientific Instruments, 6, pp.162-168; March, 1923. Reprinted in Aviation & Wireless News (Canada), 4, pp.16-18; Feb., 1923. Reprinted as "Details of a new standard B.S.Wavemeter," R.T.Cox. Radio Topics, 1, p.6; Jan., 1923.
- oR384.1 A method of measuring coil capacities and standardizing wavemeters. G.Breit. Radio Review, 3, pp.71-79; February, 1922.
- OR384.1 The standard wavemeters of the Bureau of Standards. E.L.Hall. Sibley Journal of Engineering, 38, pp.123-126; May, 1924. Popular Radio, 6, pp.173-177; August, 1924.
- R384.5. Direct-reading instrument for measuring logarithmic decrement and wave length of electromagnetic waves. F.A.Kolster. S235. (B.S.Sci. Papers 11, No.3, pp.421-455). 1914. 10 ¢.
- R388 Primary radio-frequency standardization by use of the cathode-ray oscillograph. Grace Hazon and Frieda Kenyon. S489. (B.S.Sei. Papers 19, pp.445-461). 1924. 10 ¢.



OR388 The cathodo-ray oscillograph and its application in radio work. L.M.Hull. Proceedings Institute Radio Engineers, 9, pp.130-149; April, 1921.

R 400. Radio Communication Systems.

- Ontinuous-wave radio transmission on a wave length of 100 meters using a special type of antenna. F.W. Dunmore. Proceedings Institute of Radio Engineers, 11, pp.243-255; June, 1923. Reprinted in part in QST, 6, pp.75-76 of July, 1923, as "Bureau of Standards explores short wave regions."
- °R412 Long-distance radio telephony now practicable. J.H. Dellinger. Electrical World, 77, p.142; January 15,1921
- R470 Introduction to line radio communication. Radio Communication Pamphlet No.41. (W.D.D.1114). 1923. 10 \$\phi\$.

R 500. Applications of Radio.

- R512. A directive type of radio beacon and its application to navigation. F.H. Engel and F.W. Dunmore. S480. (B.S.Sci.Papers 19, pp.281-295). 1924. 5 \(\phi \).
- oR514 Blindfold navigation, by radio: Department of Commerce radio fog signaling and radio compass system. F.A. Kolster. Shipping, 13, pp.13-18; Feb., 25, 1921.
 - OR516 The development of radio telephone communication between life-boats and shore stations. F.W.Dunmore. Radio News, 3, p.694; Feb., 1922.
 - oR520 Some physical problems of aircraft radio. (Brief note). L.E.Whittemore. Physical Review, <u>18</u>, p.149; Aug., 1921.
 - oR520.3 Radio communication with postal airplanes. J.L.Bernard and L.E.Whittemore. Aerial Age Weekly 13, p.105-106, Apr.11; p.127-129, April 18; p.155-157, Apr. 25, 1921.
 - OR551 Radio and time keeping. L.E. Whittemore. The National Jeweler, 19, pp.82-88 of Nov., 1923.
 - °R555 The standard frequency set at WWV. H.J.Walls. QST, 8, pp.9-12 of Oct., 1924.

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R 800. Non-Radio Subjects.

- Electric units and standards. C60. 63 pages. 1916. 15 \rlap/e .
- International system of electric and magnetic units. J.H.Dellinger. S292. (B.S.Sei. Papers 13, No.4, pp.599-631). 1916. 10 \(\xi\).
- °537 Present status of the electric and magnetic units.
 J.H.Dollinger. Physical Review, <u>13</u>, p.121; Aug.,1921.
- Fees for electric, magnetic and photometric testing. 7th edition. C6. 30 pages. 1916. $5 \, \text{\rlap/c}$.
- of 21.354 A high-voltage storage battery for use with electron tube generators of radio-frequency currents. T.L.Hall and J.L.Preston. Journal Optical Society of America and Review of Scientific Instruments, 6, pp.177-182; March, 1922.

Letter Circulars.

The following documents are not in printed form, and are not available from the Superintendent of Documents, Government Printing Office. They have been prepared in mimeographed form only, like this pamphlet, and can be consulted at the Bureau of Standards. The Bureau has only a small number of copies of these, but where a person can show special need for the information in one of them, a copy may be furnished by the Bureau of Standards without charge.

- Letter Circular No.40. Radio publications of the Bureau of Standards.
- Letter Circular No.50. Bibliography of books and periodicals on tests, properties and uses of electrical insulating materials.
- Letter Circular No.51, List of the more important United States patents envering the material and methods of manufacture of insulating materials.
- Letter Circular No.73. Fees for testing radio apparatus.
- Letter Circular No.75. The secondary standardization of radio wavemeters.
- Letter Gircular No.76. The standardization of inductors at radio frequencies.
- Letter Circular No.77. The comparison of condensors at radic frequencies.
- Letter Circular No.86. Methods of measuring voltage amplification of amplifiers.

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- Letter Circular No.87. Methods of measuring properties of electron tubes.
- Letter Circular No.103. Description of a series of single-layer inductance ceils suitable for radio-frequency standards.
- Letter Circular No.105. Application of statistical analysis to radio transmission problems.
- Letter Circular No.171. Requirements, construction and operation of apparatus for measurement of the frequencies of distant radio transmitting stations.
- Letter Circular No.180. Specifications for radio frequency indicator, Type B.
- Letter Circular No.182. Electrical interference with radio reception.
- Letter Circular No.183. Directions for use of the piezo oscillator and auxiliary generator for calibration of a radio frequency meter.
- Letter Circular No.185. Specifications for portable frequency meter for frequencies from 1500 to 15000 kilocycles, Bureau of Standards Type K.
- Letter Circular No.186. Specifications for portable piezo oscillator, Bureau of Standards Type N.
- Letter Circular No.187. Specifications for portable auxiliary generator, Bureau of Standards Type O.

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